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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/785,456 | 02/20/2001 | Hwan-Seong Yu | 8733.394.00 | 5029 |

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MCKENNA LONG & ALDRIDGE LLP
1900 K STREET, NW
WASHINGTON, DC 20006

EXAMINER

CHOWDHURY, TARIFUR RASHID

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2871

DATE MAILED: 08/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/785,456

Applicant(s)

YU, HWAN-SEONG

Examiner

Tarifur R Chowdhury

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 16-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 16-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/17/03 has been entered.

Status of the claims

2. Currently, claims 1-12 and 16-26 are pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-12 and 16-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art (AAPA) in view of Noguchi, USPAT 5,361,150 (provided by the applicant).**

5. The AAPA described in the present application discloses in pages 3-4 and shows in Fig. 2, a color filter substrate for use in a liquid crystal display device comprising:

- a substrate;

- a black matrix (33) having a pattern on the substrate;
- red (R), green (G) and blue (B) color filters (35) in red, green and blue color filter patterns of the black matrix respectively and wherein the red, green and blue color filters constitute a display area where color images are shown; and
- an alignment key (37) at the periphery of the substrate.

The AAPA differs from the claimed invention because it does not disclose the identification mark being formed in a non-display area at a periphery and near a corner of the substrate.

Noguchi discloses a substrate wherein an identification mark is formed in a non display area at a periphery and near a corner of the substrate (Figs., 4, 5, 8). Noguchi further discloses that by providing the identification mark on a blank portion of the display pattern unit excepting display and terminal areas thereof, it is possible to obtain a display device in which an identification mark can be readily viewed from the surface thereof so that control of product such as process control and reliability control can be sufficiently achieved (col. 2, lines 51-68).

Noguchi is evidence that ordinary workers in the art would find a reason, suggestion or motivation to form an identification mark in a non-display area at a periphery and near a corner of the substrate.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the substrate of the AAPA by forming an identification mark a non-display area at a periphery and near a corner of the substrate, so that the identification mark can be readily viewed from the surface and thus control of

product such as process control and reliability control is sufficiently achieved, as per the teachings of Noguchi.

The AAPA described in page 3, lines 6-9 also disclose the use of a transparent conductive layer over the color filter.

Further, since the method of manufacturing the color filter substrate is merely a list of forming each component and each component must be formed to make the device, the method of manufacturing would be inherent to the device.

Accordingly, claims 1, 10, 11, 16, 17 and 26 would have been obvious.

As to claims 2-4 and 18-20, the AAPA described in the present application discloses in page 4, lines 5-11 that the black matrix (33) includes chrome or chrome and chrome oxide double layer or resin having carbon.

As to claims 5-7 and 21-23, Noguchi shows in Fig. 5 that the identification mark includes a sign and a character wherein the character includes an alphabet and a number.

As to claims 8, 9, 24 and 25, using the identification mark for storing information such as manufacturer, color filter type, fabrication method and black matrix type is within the level of ordinary skill in the art and thus would have been obvious to optimize the usage of the identification mark.

As to claim 12, using an overcoat between the transparent conductive layer and the color filter is common and known for several reasons such as to protect the color filter from any contamination and thus would have been obvious.

Response to Arguments

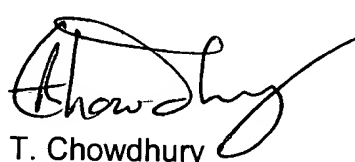
6. Applicant's arguments with respect to claims 1-12 and 16-26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (703) 308-4115. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (703) 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7005 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.


T. Chowdhury
Primary Examiner
Technology Center 2800

TRC
August 5, 2003